

Weekly Report

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January 20, 2019

1. RSATree

写cover letter时发现需要再加两个图以回答reviewer意见。录制视频遇到一些问题，界面上需要改的内容较多，还需要花一些时间改好。

2. Idea Evaluation

与谢聪师兄讨论后有了一些更明确的方向；谢聪师兄给了另外一个题目让我们考虑：用时序数据训练神经网络结构（One-Shot Model Architecture Search），通过可视化网络结构的不同来展现时序特征。

3. 本周总结

工作日平均每天工作约10小时，周末约10小时，共约60小时。

与雅婷和东明讨论图相关问题；每天与俊华交流思路；与谢聪师兄讨论思路；

Papaer Reading

3.1 Dynamic Graph

[1] L. Putriastuti, “Temporal Visualization of Social Network Dynamics: Prototypes for Nation of Neighbors,” J. Berk. Epidemiol., vol. 4 nomor 2, no. July 2016, pp. 225–236, 2016.

[2] J. W. Ahn, C. Plaisant, and B. Shneiderman, “A task taxonomy for network evolution analysis,” IEEE Trans. Vis. Comput. Graph., vol. 20, no. 3, pp. 365–376, 2014.

[3] M. Rohrschneider, A. Ullrich, A. Kerren, P. F. Stadler, and G. Scheuermann, “Visual network analysis of dynamic metabolic pathways,” Lect. Notes Comput. Sci. (including Subser. Lect. Notes Artif. Intell. Lect. Notes Bioinformatics), vol. 6453 LNCS, no. PART 1, pp. 316–327, 2010.

[4] S. Van Den Elzen, D. Holten, J. Blaas, and J. J. Van Wijk, “Dynamic network visualization with extended massive sequence views,” IEEE Trans. Vis. Comput. Graph., vol. 20, no. 8, pp. 1087–1099, 2014.

[5] C. Vehlow, F. Beck, P. Auwärter, and D. Weiskopf, “Visualizing the evolution of communities in dynamic graphs,” Comput. Graph. Forum, vol. 34, no. 1, pp. 277–288, 2015.

[6] H. Kang, L. Getoor, and L. Singh, “Visual analysis of dynamic group membership in temporal social networks,” *ACM SIGKDD Explor. Newsl.*, vol. 9, no. 2, p. 13, 2007.

[7] J. Abello, S. Hadlak, H. Schumann, and H. J. Schulz, “A modular degree-of-interest specification for the visual analysis of large dynamic networks,” *IEEE Trans. Vis. Comput. Graph.*, vol. 20, no. 3, pp. 337–350, 2014.

3.2 Eric Xing

[1] D. Yogatama, C. Wang, B. R. Routledge, N. a Smith, and E. P. Xing, “Dynamic Language Models for Streaming Text,” *Trans. Assoc. Comput. Linguist.*, vol. 2, no. 2009, pp. 181–192, 2014.

[2] M. Kolar and E. P. Xing, “On Time Varying Undirected Graphs,” vol. 15, 2011.

[3] P. Xie and E. P. Xing, “Multi-Modal Distance Metric Learning,” pp. 1806–1812, 1806.

[4] B. Xiong, G. Kim, and L. Sigal, “Storyline representation of egocentric videos with an applications to story-based search,” *Proc. IEEE Int. Conf. Comput. Vis.*, vol. 2015 Inter, pp. 4525–4533, 2015.

[5] B. Zhao and E. P. Xing, “Quasi real-time summarization for consumer videos,” *Proc. IEEE Comput. Soc. Conf. Comput. Vis. Pattern Recognit.*, pp. 2513–2520, 2014.

[6] A. P. Parikh, S. B. Cohen, and E. P. Xing, “Spectral Unsupervised Parsing with Additive Tree Metrics,” *Proc. 52nd Annu. Meet. Assoc. Comput. Linguist.*, no. June 23-25, pp. 1062–1072, 2014.

[7] G. Kim and E. P. Xing, “Reconstructing storyline graphs for image recommendation from web community photos,” *Proc. IEEE Comput. Soc. Conf. Comput. Vis. Pattern Recognit.*, pp. 3882–3889, 2014.

[8] G. Kim, L. Sigal, and E. P. Xing, “Joint summarization of large-scale collections of web images and videos for storyline reconstruction,” *Proc. IEEE Comput. Soc. Conf. Comput. Vis. Pattern Recognit.*, pp. 4225–4232, 2014.

[9] G. Kim and E. P. Xing, “Jointly aligning and segmenting multiple web photo streams for the inference of collective photo storylines,” *Proc. IEEE Comput. Soc. Conf. Comput. Vis. Pattern Recognit.*, pp. 620–627, 2013.

3.3 Visual Recommendation

- [1] T. Milo and A. Somech, “Deep Reinforcement-Learning Framework for Exploratory Data Analysis,” *Proc. First Int. Work. Exploit. Artif. Intell. Tech. Data Manag. - aiDM’ 18*, pp. 1–4, 2018.
- [2] K. Hu and D. Orghian, “DIVE : A Mixed-Initiative System Supporting Integrated Data Exploration Workflows.”
- [3] R. Mafrur, “DiVE : Diversifying View Recommendation for Visual Data Exploration,” pp. 1123–1132, 2018.
- [4] K. Dimitriadou, O. Papaemmanouil, and Y. Diao, “AIDE: An Active Learning-Based Approach for Interactive Data Exploration,” *IEEE Trans. Knowl. Data Eng.*, vol. 28, no. 11, pp. 2842–2856, 2016.
- [5] H. Ehsan, M. A. Sharaf, and P. K. Chrysanthis, “MuVE: Efficient Multi-Objective View Recommendation for Visual Data Exploration,” *2016 IEEE 32nd Int. Conf. Data Eng. ICDE 2016*, pp. 731–742, 2016.
- [6] C. Wang and K. Chakrabarti, “Efficient Attribute Recommendation with Probabilistic Guarantee,” *Proc. 24th ACM SIGKDD Int. Conf. Knowl. Discov. Data Min. - KDD ’ 18*, pp. 2387–2396, 2018.
- [7] H. Ehsan, M. A. Sharaf, and P. K. Chrysanthis, “Efficient Recommendation of Aggregate Data Visualizations,” *IEEE Trans. Knowl. Data Eng.*, vol. 30, no. 2, pp. 263–277, 2018.

3.4 time-series & sequence

- [1] A. Bagnall, J. Lines, A. Bostrom, J. Large, and E. Keogh, “The great time series classification bake off : a review and experimental evaluation of recent algorithmic advances,” *Data Min. Knowl. Discov.*, vol. 31, no. 3, pp. 606–660, 2017.
- [2] R. J. Kate, “Using dynamic time warping distances as features for improved time series classification,” *Data Min. Knowl. Discov.*, vol. 30, no. 2, pp. 283–312, 2016.
- [3] A. Bagnall, J. Lines, A. Bostrom, J. Large, and E. Keogh, “The great time series classification bake off : a review and experimental evaluation of recent algorithmic advances,” *Data Min. Knowl. Discov.*, vol. 31, no. 3, pp. 606–660, 2017.
- [4] R. J. Kate, “Using dynamic time warping distances as features for improved time series classification,” *Data Min. Knowl. Discov.*, vol. 30, no. 2, pp. 283–312, 2016.

3.5 One-Shot Model Architecture Search

[1] Z. Zhong, “Practical Block-wise Neural Network Architecture Generation.”

[2] A. Brock, T. Lim, J. M. Ritchie, and N. Weston, “SMASH : One-Shot Model Architecture Search through HyperNetworks.”

[3] B. Recently et al., “SINGLE SHOT NEURAL ARCHITECTURE SEARCH,” pp. 1–12, 2019.

计划-短期

TASK	DESCRIPTION	SCHEDULE
尺寸感知	正在进行正式实验	
RSATree	完成修改	
论文套路总结	添加CHI投稿中总结的一些写作规律	

计划-中期

TASK	DESCRIPTION	SCHEDULE
尺寸感知	论文（实验结果部分）	十一月
VIS投稿	之前构思过的时序预测	十一月开始

计划-长期

TASK	DESCRIPTION	SCHEDULE
毕业论文	目前定位为可视设计方向	开始考虑一下整体构思

Works Progresses

TASK	PROGRESS	TODO	ISSUES	DATE
RSATree	修订投TVCG	整理代码、跑通对比项目		
电子学报	已发表			
ECharts论文	已发表			
尺寸感知		实验		